

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or the below named inventors are the original, first and joint inventors (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled **MU OPIOID RECEPTOR: COMPOSITIONS AND METHODS**, the Specification of which:

X was filed on September 13, 1993 as Application Serial No. 08/120,601.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose to the Patent and Trademark Office all information known to me to be material to patentability of the subject matter claimed in this application, as "materiality" is defined in Title 37, Code of Federal Regulations, § 1.56.


I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose all information known to me to be material to patentability of the subject matter claimed in this application, as "materiality" is defined in Title 37, Code of Federal Regulations, § 1.56, which become available between the filing date of the prior application and the national or PCT international filing date of this application:

08/056,886	March 8, 1993	PENDING
(Application Serial No.)	(Filing Date)	(Status)

I hereby direct that all correspondence and telephone calls be addressed to Mark B. Wislon, Arnold, White & Durkee, P.O. Box 4433, Houston, Texas 77210 (512) 320-7200.

I hereby declare that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Inventor's Signature: 

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APPENDIX A:  
Marked-up Version of Claims



44. (Amended three times) A process of screening a candidate substance for its ability to bind to [interact with] a mu opioid receptor comprising:
- a) providing a recombinant mu opioid receptor polypeptide comprising the contiguous amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:8, or SEQ ID NO:17;
  - b) obtaining a candidate substance; and
  - c) testing the ability of said candidate substance to bind to [interact with] said opioid receptor.
46. (Amended) The process of claim 44 wherein the step of testing the ability of the candidate substance to bind to [interact with] the opioid receptor involves determining the binding affinity of the candidate substance to the receptor.
47. (Amended) The process of claim 44 wherein the step of testing the ability of the candidate substance to bind to [interact with] the opioid receptor involves determining the intrinsic activation ability of the candidate substance for the receptor.
65. (Amended) A process for screening a candidate substance for its ability to bind to [interact with] a mu opioid receptor comprising:
- (a) providing a recombinant opioid receptor polypeptide encoded by a nucleic acid sequence comprising at least 35 contiguous nucleotides of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7;
  - (b) contacting the substance with the recombinant opioid receptor polypeptide; and
  - (c) detecting the ability of the candidate substance to bind to [interact with] the recombinant opioid receptor polypeptide.

72. (Amended) The process of claim 65, wherein detecting the ability of the candidate substance to bind to [interact with] the recombinant opioid receptor polypeptide involves measuring (i) the ability of the recombinant opioid receptor polypeptide to bind the candidate substance; (ii) ability of the candidate substance to activate ion channels in a cell membrane; or (ii) modulation of ion channels in the cell membrane of part (ii).
74. (Amended) A process for screening a candidate substance for its ability to bind to [interact with] an opioid receptor comprising:
- (a) expressing a recombinant opioid receptor polypeptide encoded by a nucleic acid sequence comprising at least 35 contiguous bases of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7;
  - (b) contacting the candidate substance with the recombinant opioid receptor polypeptide; and
  - (c) detecting the ability of the candidate substance to bind to [interact with] the recombinant opioid receptor polypeptide.